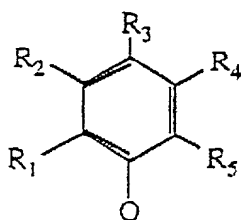


# CLAIMS

1. A catalytic composition, characterized in that it is obtained by mixing:
  - at least one chromium compound;
  - with at least one aryloxy compound of an element M selected from the group formed by magnesium, calcium, strontium and barium, with general formula  $M(RO)_{2-n}X_n$ , where RO is an aryloxy radical containing 6 to 80 carbon atoms, X is a halogen or a hydrocarbyl radical containing 1 to 30 carbon atoms and n is a whole number that can take values of 0 to 2; and
  - with at least one aluminum compound selected from the group formed by tris(hydrocarbyl)aluminum compounds and chlorinated or brominated hydrocarbylaluminum compounds, with general formula  $AlR'_mY_{3-m}$ , where R' is a hydrocarbyl radical containing 1 to 6 carbon atoms, Y is a chlorine or bromine atom and m is a number from 1 to 3, and aluminoxanes.
2. A composition according to claim 1, characterized in that the chromium compound comprises one or more identical or different anions selected from the group formed by halides, carboxylates, acetylacetonates, and alkoxy or aryloxy anions.
3. A composition according to claim 1 or claim 2, characterized in that the aryloxy radical RO in the aryloxy compound of element M with general formula  $M(RO)_{2-n}X_n$  has general formula:



where R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub> and R<sub>5</sub>, which may be identical or different, represent a hydrogen atom, a halogen atom or a hydrocarbyl radical containing 1 to 16 carbon atoms.

4. A composition according to any one of claims 1 to 3, characterized in that the aryloxy compound of element M is bis(2,6-diphenylphenoxy)magnesium, bis(2-tert-butyl-6-phenylphenoxy)magnesium or bis(2,4-di-tert-butyl-6-phenylphenoxy)magnesium.
5. A composition according to any one of claims 1 to 4, characterized in that the hydrocarbylaluminum compound is dichloroethylaluminum, ethylaluminum sesquichloride, chlorodiethylaluminum, chlorodiisobutylaluminum, triethylaluminum, tripropylaluminum, triisobutylaluminum or methylaluminoxane.
6. A composition according to any one of claims 1 to 5, characterized in that the hydrocarbylaluminum compound is triethylaluminum.
7. A composition according to any one of claims 1 to 6, characterized in that the components of the catalyst are brought into contact in a solvent comprising at least one saturated hydrocarbon, at least one unsaturated olefinic or diolefinic hydrocarbon and/or at least one aromatic hydrocarbon.
8. A composition according to any one of claims 1 to 7, characterized in that the chromium concentration in the catalytic solution is in the range  $1 \times 10^{-5}$  to 0.1 mole/l.
9. A composition according to any one of claims 1 to 8, characterized in that the mole ratio between the aryloxy compound of element M and the chromium compound is 1:1 to 30:1, and the mole ratio between the hydrocarbylaluminum compound and the chromium compound is 1:1 to 35:1.
10. An ethylene oligomerization process using a catalytic composition according to any one of claims 1 to 9.
11. A process according to claim 10, characterized in that the ethylene oligomerization reaction is carried out at a pressure of 0.5 to 15 MPa and at a temperature of 20°C to 180°C.